# CURRICULAM VITAE


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| Name | : | **M. B. GOVINDA RAJULU** |
| Address | : | 'A' Type, 6/161, Sidco Nagar<br>Villivakkam<br>Chennai 600 049<br>email: gov_rajulu007@yahoo.com<br>Phone: 9841798340 |


## PERSONAL INFORMATION

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| Date of birth | : | 14.06.1978 |
| Nationality | : | Indian |

## EDUCATIONAL QUALIFICATION:

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| Ph.D. | Botany | 2011 | University of Madras |

Title of thesis:
**Ecology and biotechnological potential of endophytic fungi of a dry thorn forest**

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| M. Phil. | Botany | 2004 | University of Madras |

Title of M. Phil Dissertation:
**A study of fungal endophytes of *C. annuum*. L**.

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| M.Sc. | Botany | 2002 | Annamalai University |
| B.Sc. | Botany | 1999 | University of Madras |

## RESEARCH EXPERIENCE:

- Working as a Research Associate from March 2011 to till date: Department of Biotechnology, Government of India, funded project on "**The potential of fungal endophytes as biocontrol organisms**" under the guidance of Dr. T.S. Suryanarayanan, Director, Vivekananda Institute of Tropical Mycology, RKM Vidyapith, Chennai.

- Two and half years experience as a Senior Research Fellow (Januray 2008- May 2010) in Department of Biotechnology, Government of India, funded project on **"Enzymes of pharmaceutical importance from tropical microfungi"** under the guidance of Dr. T.S. Suryanarayanan, RKM Vivekananda College. During my tenure as a SRF in this Indo-

German project, learnt the techniques of chitinase and chitosanases of endophytes trained for nine months in the laboratory of Prof. Bruno Moersbacher, University of Muenster, Germany.

- Two years experience as a Junior Research Fellow (August 2005- December 2007) in Department of Biotechnology, Government of India, funded project on **"Screening of tropical fungal endophytes for novel secondary metabolites"** under the guidance of Dr. T.S. Suryanarayanan, RKM Vivekananda College.

- Worked for M. Phil under the guidance of Dr. V. Muruganandam, RKM Vivekananda College (2003-2004)

**PUBLICATIONS:**

**Govinda Rajulu, M.B**., Thirunavukkarasu, N., Babu, A.G., Aggarwal, A. , Suryanarayanan, T.S. and Reddy, M.S. 2013.Endophytic Xylariaceae from the forests of Western Ghats, southern India: distribution and biological activities . *Mycology: An International Journal on Fungal Biology*, DOI:10.1080/21501203.2013.776648.

Suryanarayanan, T.S., Thirunavukkarasu, N., **Govinda Rajulu, M.B**. and Gopalan, V. 2012. Fungal endophytes: an untapped source of biocatalysts. *Fungal Diversity* **54**:19–30.

Suryanarayanan, T.S., Venkatachalam, A. and **Govinda Rajulu, M.B**. 2011. A comparison of endophyte assemblages in transgenic and non-transgenic cotton plant tissues. *Current Science* **101**:1472-1474.

Suryanarayanan, T.S., **Govinda Rajulu, M.B**, Thirumalai, E.,Reddy, M.S. and Money, N.P. (2011). Agni's fungi: heat-resistant spores from the Western Ghats, southern India. Fungal Biology **115**: 833-838.

Suryanarayanan, T.S., Murali, T.S., Thirunavukkarasu, N., **Govinda Rajulu**, **M.B.**, Venkatesan, G., Sukumar, R. 2011. Endophytic fungal communities in woody perennials of three tropical forest types of the Western Ghats, southern India. *Biodiversity and Conservation* **20**: 913-928.

**Govindarajulu, M.B.**, Thirunavukkarasu, N, Suryanarayanan, T.S., Ravishankar, J.P., El Gueddari, N.E., and Moerschbacher, B.M. 2011. Chitinolytic enzymes from endophytic fungi. *Fungal Diversity* **47**:43-53.

Suryanarayanan, T.S., Thirunavukkarasu, N., **Govindarajulu, M.B**., Sasse, F., Jansen, R. and Murali, T.S. 2009. Fungal endophytes and bioprospecting. *Fungal Biology Reviews* **23**: 9-19.

Suryanarayanan, T.S., Thirumalai, E., Prakash, C.P., **Govindarajulu, M.B**. and Thirunavukkarasu, N. 2009. Fungi from two forests of southern India: a comparative study of endophytes, phellophytes and leaf litter fungi. *Canadian Journal of Microbiology* **55**: 419-426.

## ABSTRACTED PRESENTATIONS IN NATIONAL & INTERNATIONAL SEMINAR/SYMBOSIA:

Suryanarayanan, T.S., Devarajan, P.T., Girivasan, K.P., **Govinda Rajulu, MB**, Mohandoss, J. and Thirunavukkarasu, N. 2013. Endophyte research: some gaps which need filling up. National seminar on current perspectives of Fungi in Health Care and Environment, Bangalore University, Bangalore, India.

Suryanarayanan, T. S, Doble, M., El Gueddari, N. E., Gopalan, V., **Govindarajulu, M. B**., Moerschbacher, B.M., Money, N. P., Murali, T. S., Sahal, D., Sasse, F., Sukumar, R., Thirunavukkarasu, N and Vidal, S. 2012. Fungal endophytes: an ecological group with high technological potential. International conference on Endophytes in biotechnology and agriculture, Foundation Edmund Mach, COST Meeting Trento, Italy.

Thirunavukkarasu, N., **Govinda Rajulu, M.B**., Mohandoss, J., Suryanarayanan, T.S. 2011. Endophyte assemblage of an evergreen forest in the Nilgiri biosphere reserve. National conference on "Recent Advances in Mycological Research", Chennai, India.

Nagaraju D, **Govindarajulu MB**, El Gueddari NE, Suryanarayanan TS, Moerschbacher BM 2009. Identification and characterization of chitinolytic enzymes from endophytic fungi. `Sugars in Norwich` – Royal Soc. Chemistry, Carbohydrate Meeting, London, UK.

Thirunavukkarasu N, **Govindarajulu MB**, Murali TS, Thirumalai E, Prakash CP, Suryanarayanan TS. 2009. Extracellular enzymes of microfungi from forests of the Western Ghats. National symposium on "New Vistas for Mycology in meeting global challenges", Chennai, India.

Thirunavukkarasu N, **Govindarajulu MB**, Florenz Sasse, Rolf Jansen, Suryanarayanan TS. 2007. Bioactive compounds from endophytic fungi isolated from trees of Western Ghats.2nd Asian Congress of Mycology and Plant Pathology, Hyderabad.

**Govindarajulu MB**, Muruganandam, V, Suryanarayanan TS. 2006. Fungal endophytes of *Capsicum annuum*. L. National Seminar on Fungal Biodiversity, Biotechnology & Bioinformatics, Bangalore.

**Govindarajulu MB**, Thirunavukkarasu N, Florenz Sasse, Rolf Jansen, Suryanarayanan TS. 2006. Chaetoglobosins with anti-actin activity from an endophytic *Chaetomium* sp. National conference on Recent Trends in Mycological Research, Pudukottai.

## COMPUTER SKILLS:

- Excellent skills in MS word, Excel, Powerpoint and Access
- Working knowledge of statistical packages including EstimateS, BioDiversity Pro, Graphpad Prism

## CITATION INDEX:

**Suryanarayanan, T.S., Murali, T.S., Thirunavukkarasu, N., Govinda Rajulu, M.B., Venkatesan, G., Sukumar, R. 2011. Endophytic fungal communities in woody perennials of three tropical forest types of the Western Ghats, southern India. *Biodiversity and Conservation* 20: 913-928.**

Li, H.Y., Shen, M., Zhou, Z.P., Li, T., Wei, Y.L. and Lin, L.B. 2012. Diversity and cold adaptation of endophytic fungi from five dominant plant species collected from the Baima Snow Mountain, Southwest China. *Fungal Diversity* **54**, 79-86.

Déon, M., Scomparin, A., Tixier, A., Mattos, C.R.R. Leroy, T., Seguin, M., Roeckel-Drevet, P. and Pujade-Renaud, V. 2012. First characterization of endophytic *Corynespora cassiicola* isolates with variant cassiicolin genes recovered from rubber trees in Brazil. *Fungal Diversity* **54**, 87-99.

U'Ren, J.M., Lutzoni, F., Miadlikowska, J., Laetsch, A.D. and Arnold, A.E. 2012. Host and geographic structure of endophytic and endolichenic fungi at a continental scale. *American Journal of Botany* **99**, 898-914.

**Govindarajulu, M.B., Thirunavukkarasu, N, Suryanarayanan, T.S., Ravishankar, J.P., El Gueddari, N.E., and Moerschbacher, B.M. 2011. Chitinolytic enzymes from endophytic fungi. *Fungal Diversity* 47:43-53.**

Udayanga, D., Liu, X., McKenzie, E.H.C., Chukeatirote, E., Bahkali, A.H.A. and Hyde, K.D. 2012. The genus *Phomopsis*: biology, applications, species concepts and names of common phytopathogens. *Fungal Diversity* **50**, 189-225.

Mtui. G,.Y.S. 2012. Lignocellulolytic enzymes from tropical fungi: Types, substrates and applications. *Scientific Research and Essays* 7, 1544-1555.

Nampally, M., Moerschbacher, B.M. and Kolkenbrock, S. 2012. Fusion of a novel genetically engineered chitosan affinity protein and green fluorescent protein for specific detection of chitosan i*n vitro* and i*n situ. Applied Environmental and Microbiology* **78,** 3114-3119.

Pancher, M., Ceol, M., Corneo, P.E., Longa, C.M.O., Yousaf, S., Pertot, I., and Campisano, A. 2012. Fungal endophytic communities in grapevines (*Vitis vinifera* L.) respond to crop management. Applied Environmental and Microbiology **78**, 4308-4317.

**Suryanarayanan, T.S., Thirunavukkarasu, N., Govindarajulu, M.B., Sasse, F., Jansen, R. and Murali, T.S. (2009). Fungal Endophytes and Bioprospecting. *Fungal Biology Reviews* 23: 9-19.**

Márquez, S.S., Bills, G.F., Herrero, N. and Zabalgogeazcoa, I. 2012. Non-systemic fungal endophytes of grasses. *Fungal Ecology* **5**, 289-297.

Zhao, J., Zheng, B., Li, Y., Shan, T., Mou, Y., Lu, S., Li, P. and Zhou, L. 2011. Enhancement of Diepoxin ζ Production by Yeast Extract and Its Fractions in Liquid Culture of *Berkleasmium*-Like Endophytic Fungus Dzf12 from *Dioscorea zingiberensis. Molecules* **16,** 847-856.

Banerjee, D., 2011. Endophytic fungal diversity in tropical and subtropical plants. *Research Journal of Microbiology* **6**, 54-62.

Bhimba, B.V., Franco, D.A., Jose, G.M., Mathew, J.M., Joel, E.L., 2011. Characterization of cytotoxic compound from mangrove derived fungi *Irpex hydnoides* VB4. Asian Pacific Journal of Tropical Biomedicine 223-226.

Kusari, S., Verma, V.C., Lamshoeft, M. and Spiteller, M. 2012. An endophytic fungus from *Azadirachta indica* A. Juss. that produces azadirachtin. *World Journal of Microbiology and Biotechnology* **28**, 1287-1294

Vaz, A.B.M., Brandão, L.R., Vieira, M.L.A., Pimenta, R.S., Morais P.B., Sobra, M.E.G., Rosa, L.H. and Rosa, C.A. 2012. Diversity and antimicrobial activity of fungal endophyte communities associated with plants of Brazilian savanna ecosystems. *African Journal of Microbiology Research* **6**, 3173-3185.

Wu, L.S., Hu, C.L., Han, T., Zheng, C.J., Ma, X-Q., Rahman, K. and Qin, L.P. 2012. Cytotoxic metabolites from *Perenniporia tephropora*, an endophytic fungus from *Taxus chinensis* var. mairei. *Applied Microbiology and Biotechnology* DOI: 10.1007/s00253-012-4189-7.

Sebastianes, F.L.S., Lacava, P.T., Fávaro, L.C.L., Rodrigues, M.B.C., Araújo, W.L., Azevedo, J.L. and Pizzirani-Kleiner, A.A. 2012. Genetic transformation of *Diaporthe phaseolorum*, an endophytic fungus found in mangrove forests, mediated by *Agrobacterium tumefaciens*. *Current Genetics* **58**, 21-33.

Chai, Y.J., Cui, C.B., Li, C.W., Wu, C.J., Tian, C.K. and Hua, W. 2012. Activation of the dormant secondary metabolite production by introducing gentamicin-resistance in a marine-derived *Penicillium purpurogenum* G59. *Marine Drugs* **10**, 559-582.

Glenn, A, and Bodri, M.S. 2012. Fungal endophyte diversity in *Sarracenia*. *PLoS ONE* 7(3): e32980. doi:10.1371/journal.pone.0032980.

Fávaro, L.Cd.L., Sebastianes, F.Ld.S. and Araújo, W.L. 2012. *Epicoccum nigrum* P16, a sugarcane endophyte, produces antifungal compounds and induces root growth. *PLoS ONE* 7(6): e36826. doi:10.1371/journal.pone.0036826.

Shi, J., Zeng, Q., Liu, Y. and Pan, Z., 2012. *Alternaria* sp. MG1, a resveratrol-producing fungus: isolation, identification, and optimal cultivation conditions for resveratrol production. *Applied Microbiology and Biotechnology* **95**, 369-379.

Damare, S., Singh, P. and Raghukumar, S. 2012. Biotechnology of Marine Fungi. *In*:Biology of Marine Fungi Progress in Molecular and Subcellular Biology **53**, 277-297.

Li, P., Mao, Z., Lou, J., Li, Y., Mou, Y., Lu, S., Peng, Y. and Zhou, L. 2011. Enhancement of Diosgenin production in *Dioscorea zingiberensis* cell cultures by oligosaccharides from its endophytic fungus *Fusarium oxysporum* Dzf17. *Molecules* **16**, 10631-10644.

Siriwach, R., Kinoshita, H., Kitani, S., Igarashi, Y., Pansuksan, K., Panbangred, W. and Nihira, T. 2011. Xylaropyrone, a new γ-pyrone from the endophytic fungus *Xylaria feejeensis* MU18. *The Journal of Antibiotics* **64**, 217-219.

Qin, S., Xing, Ke, Jiang, J-H., Xu, L-H. and Li, W-J. 2011. Biodiversity, bioactive natural products and biotechnological potential of plant-associated endophytic actinobacteria. *Applied Microbiology and Biotechnology* **89**, 457-473.

Rocha, A.C.S., Garcia, D., Uetanabaro, A.P.T., Carneiro, R.T.O., Araújo, I.S., Mattos, C.R.R. and Góes-Neto, A. 2011. Foliar endophytic fungi from *Hevea brasiliensis* and their antagonism on *Microcyclus ulei*. *Fungal Diversity* **47**, 75-84.

Aly, A.H., Debbab, A. and Proksch, P. 2011. Fungal endophytes: unique plant inhabitants with great promises. *Applied Microbiology and Biotechnology* **90**, 1829-1845.

Kumar, C.G., Mongolla, P., Joseph, J., Nageswar, Y.V.D. and Kamal, A. 2010. Antimicrobial activity from the extracts of fungal isolates of soil and dung samples from Kaziranga National Park, Assam, *India Journal de Mycologie Médicale / Journal of Medical Mycology* **20**, 283-289.

**Suryanarayanan, T.S., Thirumalai, E., Prakash, C.P., Govindarajulu, M.B. and Thirunavukkarasu, N. (2009). Fungi from two forests of southern India: a comparative study of endophytes, phellophytes and leaf litter fungi. *Canadian Journal of Microbiology* 55: 419-426.**

Pinruan, U., Rungjindamai, N., Choeyklin, R., Lumyong, S., Hyde, K.D. and Jones, E.B.G. Occurrence and diversity of basidiomycetous endophytes from the oil palm, Elaeis guineensis in Thailand. *Fungal Diversity* 41, 171-188.